

## **REMARKS**

Favorable reconsideration and allowance of the claims as presented herein in view of the following remarks are respectfully presented.

Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47, 49-53 and 55-56 are now pending in this application. By this Amendment, Claims 33 and 49 have been amended and new Claims 55 and 56 have been added to further define an embodiment of the invention. Support for amended Claims 33 and 49 and new Claims 55 and 56 can be found in the specification, for instance, on page 17, lines 14-17. Applicants respectfully submit that no new matter has been added to the subject invention nor have any new issues been raised by this Amendment. Moreover, it is submitted that the claims as now presented place the subject application in condition for immediate allowance.

In the final Office Action dated August 24, 2004, the Examiner made final the restriction requirement issued previously and has withdrawn from consideration Claims 38, 43, 48 and 54 as being drawn to a patentably distinct species. By this amendment, Applicants' have canceled Claims 38, 43, 48 and 54 without prejudice. Applicants respectfully note the Examiner's statement in the Office Action that upon the allowance of a generic claim, applicants will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 C.F.R. §1.141.

In the final Office Action dated August 24, 2004, the Examiner rejected Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47 and 49-53 under 35 U.S.C. §102(b) as being anticipated by

or, in the alternative, under 35 U.S.C. §103(a) as obvious over Fischer et al. U.S. Patent No. 6,399,735 ("Fischer").

Nowhere does Fischer disclose a process for the production of at least two-ply paper laminates comprising "applying a water-soluble hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight to a first layer of paper, the hotmelt adhesive comprising one or more polyurethanes having a molecular weight ( $M_n$ ) of at least 2,000 and wherein a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C" as presently recited in independent Claim 1. Nor does Fischer disclose a hygiene paper comprising a first layer of paper secured to a second layer of paper by a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and comprising one or more polyurethanes having a molecular weight ( $M_n$ ) of at least 2,000, wherein a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C as presently recited in independent Claim 26. Nor does Fischer disclose a process for the production of at least two-ply paper laminates comprising "applying a hotmelt adhesive to at least a portion of a first layer of paper, the hotmelt adhesive comprising a polyurethane obtained from a polyurethane reaction mixture containing a hydrophobic diol having a hydrophobic moiety containing from 6 to 36 carbon atoms and contacting a second layer of paper with the hotmelt adhesive" as presently recited in independent Claim 32. Nor does Fischer disclose a process for the production of at least two-ply paper laminates comprising "applying a hotmelt adhesive to at least a portion of a first layer of paper, the hotmelt adhesive comprising a polyurethane obtained from a polyurethane reaction mixture containing a hydrophobic structural element obtained by reacting at least one NCO-terminated oligomer with a reactant selected from the group consisting of mono-ols and

monofunctional amines; and contacting a second layer of paper with the hotmelt adhesive” as presently recited in independent Claim 35.

Rather, Fischer discloses water-soluble hot melt adhesives comprising one or more nonionic polyurethanes for bonding paper, wallpaper and labels. At no point does Fischer disclose any processes for producing two-ply paper laminates employing a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight. Nor, for that matter, is it seen where Fischer discloses hygiene paper a hygiene paper comprising a first layer of paper secured to a second layer of paper by a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and comprising one or more polyurethanes having a molecular weight ( $M_n$ ) of at least 2,000, wherein a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C. If it is the Examiner’s position that Fischer discloses the claimed processes for producing two-ply paper laminates; and the claimed hygiene paper, the Examiner is respectfully requested to identify with particularity (i.e., by column and line number) wherein Fischer such disclosure can be found. Accordingly, amended Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47 and 49-53 present novel subject matter relative to Fischer.

There is likewise no disclosure or suggestion in Fischer of the presently claimed processes for the production of two-ply paper or of the claimed hygiene paper. Rather, Fischer is particularly directed to polyurethanes as effective wallpaper adhesives with universal adhesion properties, for placing wallpaper on plastics, such as PVC, or on painted surfaces. Fischer further discloses that its adhesive strength is so high that even heavy wallpapers can be hung without difficulty (see column 6, lines 7-28). Accordingly, nothing in Fischer would lead one skilled in the art to modify the wallpaper adhesives of Fischer to arrive at the presently claimed processes

for the production of two-ply papers or, for that matter, to arrive at the presently claimed hygiene paper with any expectation of success. In lacking any disclosure or suggestion of the claimed processes for the production of at least two-ply paper laminates and the claimed hygiene paper, amended Claims 1, 13-15, 18, 26, 28-30, 37, 39-42, 44-47 and 49-53 are believed to be nonobvious, and therefore patentable, over Fischer.

New Claims 55-56 depend from Claims 1 and 26, respectively. As such, these claims are believed to be allowable for at least the same reasons as given above.

Further in the final Office Action dated August 24, 2004, the Examiner has rejected Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47 and 49-53 under 35 U.S.C. §103(a) as being obvious over the admitted prior art in view of either one of Fischer or Japanese CHEM KK reference JP 54-1347 ("Japanese CHEM KK").

As pointed out by the Examiner in the Office Action, nowhere does the admitted prior art disclose or suggest a process for the production of at least two-ply paper laminates comprising “applying a water-soluble hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight to a first layer of paper, the hotmelt adhesive comprising one or more polyurethanes having a molecular weight ( $M_n$ ) of at least 2,000 and wherein a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C” as presently recited in independent Claim 1. Nor does the admitted prior art disclose or suggest a hygiene paper comprising a first layer of paper secured to a second layer of paper by a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and comprising one or more polyurethanes having a molecular weight ( $M_n$ ) of at least 2,000, wherein a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C as presently recited in

independent Claim 26. Nor does the admitted prior art disclose or suggest a process for the production of at least two-ply paper laminates comprising “applying a hotmelt adhesive to at least a portion of a first layer of paper, the hotmelt adhesive comprising a polyurethane obtained from a polyurethane reaction mixture containing a hydrophobic diol having a hydrophobic moiety containing from 6 to 36 carbon atoms and contacting a second layer of paper with the hotmelt adhesive” as presently recited in independent Claim 32. Nor does the admitted prior art disclose or suggest a process for the production of at least two-ply paper laminates comprising “applying a hotmelt adhesive to at least a portion of a first layer of paper, the hotmelt adhesive comprising a polyurethane obtained from a polyurethane reaction mixture containing a hydrophobic structural element obtained by reacting at least one NCO-terminated oligomer with a reactant selected from the group consisting of mono-ols and monofunctional amines; and contacting a second layer of paper with the hotmelt adhesive” as presently recited in independent Claim 35.

Rather, the admitted prior art discloses that the disadvantage of bonding together hygiene papers using a water-soluble adhesive. The admitted prior art further discloses that while it is advantageous and desirable for the adhesive to be completely water-soluble, the admitted prior art is silent as to a particular adhesive that is completely water-soluble.

To remedy the deficiencies of the admitted prior art, the Examiner alleges that “[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the water soluble adhesive taught by the admitted prior art any of the well known and conventional adhesives in the art that are completely water soluble such as those suggested by either one of Fischer et al. or Chem KK as only the expected results would be achieved”. This

wholly unsupported allegation cannot possibly serve as a basis for this rejection. The admitted prior art in the application simply discloses the disadvantages of water soluble adhesives. Besides, it is well established that there must be some teaching, motivation or suggestion to select and combine references relied upon as evidence of obviousness. *In re Lee*, 277 F.3d 1338, 1342-43, 61 USPQ2d 1430, 1433-34 (CAFC 2002). Accordingly, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 221 USPQ 929, 933 (Fed. Cir. 1984).

Fischer does not cure the deficiencies of the admitted prior art. Rather, Fischer is directed to polyurethanes as effective wallpaper adhesives with universal adhesion properties, for placing wallpaper on plastics, such as PVC, or on painted surfaces. At no point does Fischer have any appreciation that the water-soluble hotmelt adhesives as set forth in the present claims would be useful in processes for forming two-ply paper laminates or in forming hygiene papers. In fact, Fischer discloses that the adhesive strength of the adhesive disclosed therein is so high that even heavy wallpapers can be hung without difficulty (see column 6, lines 7-28). As such, nothing in Fischer would lead one skilled in the art to modify the hygiene papers disclosed in the admitted prior art by looking to the wallpaper adhesives of Fischer to arrive at the presently claimed processes for the production of two-ply papers or, for that matter, to arrive at the presently claimed hygiene paper with any expectation of success.

Japanese CHEM KK likewise does not cure the deficiencies of the admitted prior art. Rather, Japanese CHEM KK discloses that a water soluble polyurethane resin can be used in thermally bonding a *hot-melt adhesive cloth to cloth* without hardening the texture of the sewn

finished product. The final product is used as, for example, a collar or a cuff in a shirt.

Applicants instead form (1) two-ply paper laminates in the recited processes of the present invention, as set forth in Claims 1, 32 and 35 and (2) hygiene paper, as set forth in Claim 26.


Accordingly, one skilled in the art would not look to the disclosure of Japanese CHEM KK for adhesives used in bonding *cloth to cloth* to modify the admitted prior art and arrive at the claimed processes for the production of two-ply paper and the claimed hygiene paper.

New Claims 55 and 56 depend from Claims 1 and 26, respectively. As such, these claims are believed to be allowable for at least the same reasons as given above.

For the foregoing reasons, amended Claims 1, 13-15, 18, 26, 28-30, 37, 39-42, 44-47, 49-53 and new Claims 55 and 56 are believed to nonobvious, and therefore patentable, over the admitted prior art in view of Fischer or Japanese CHEM KK, no matter how these references are considered or combined. Thus, withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

For the foregoing reasons, amended Claims 1, 13-15, 18, 26, 28-30, 32-37, 39-42, 44-47, 49-53 and new Claims 55 and 56 as presented herein are believed to be in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



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